

## The comparison of headache in modern and traditional Iranian medicine

La comparación del dolor de cabeza en la medicina iraní moderna y tradicional

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### ABSTRACT

Headache is one of the most common pains in during life all of the human, which even children sometimes suffer from it. In modern medicine, headaches are broadly classified into two primary and secondary. Primary headaches usually are headaches in which the illness or other factor has not caused headache, and include cluster headaches - migraines and tension-type headaches and chronic daily headaches. Secondary headaches have many causes and pathologies (disease or pathology) that affected by disease or problems in other parts of the body, or intracranial disease, such as meningitis, which has been shown as a headache. Fortunately, about 98% of the headaches are benign and improvable and 1to 2 percent of the headaches occur due to brain tumors or brain damage. According to the World Health Organization, 64% to 77% of the world's population experienced headaches at least once in their life, and 50% of the people once a year had headaches. In traditional Iranian medicine, as many as sixty types of headaches in various temperaments: Bilious, Sanguine, phlegmatic and melancholic, by Iranian great scientists such as Avicenna and Hakim Momen, have been investigated and various strategies for prevention and treatment many of them have been recommended. In this research, several studies to search in the authoritative traditional medicine resources and PubMed databases investigated and various mechanisms for the treatment of headache in Iranian traditional medicine have been interpreted.

**Keywords:** Headache, temperament, Sodaa (migraine), Iranian traditional medicine

### RESUMEN

El dolor de cabeza es uno de los dolores más comunes en la vida de todo el ser humano, que incluso los niños a veces sufren. En la medicina moderna, los dolores de cabeza se clasifican ampliamente en dos primarios y secundarios. Los dolores de cabeza primarios generalmente son dolores de cabeza en los que la enfermedad u otro factor no ha causado dolor de cabeza e incluyen dolores de cabeza en racimo: migrañas y dolores de cabeza de tipo tensional y dolores de cabeza crónicos diarios. Los dolores de cabeza secundarios tienen muchas causas y patologías (enfermedades o patologías) que se ven afectadas por enfermedades o problemas en otras partes del cuerpo o enfermedades intracraneales, como la meningitis, que se ha demostrado como un dolor de cabeza. Afortunadamente, alrededor del 98% de los dolores de cabeza son benignos y mejorables y del 1 al 2 por ciento de los dolores de cabeza ocurren debido a tumores cerebrales o daño cerebral. Según la Organización Mundial de la Salud, del 64% al 77% de la población mundial experimentó dolores de cabeza al menos una vez en su vida, y el 50% de las personas una vez al año tenían dolores de cabeza. En la medicina tradicional iraní, se han investigado hasta sesenta tipos de dolores de cabeza en varios temperamentos: biliosos, sangrientos, flemáticos y melancólicos, por grandes científicos iraníes como Avicena y Hakim Momen, y se han investigado varias estrategias para la prevención y el tratamiento, muchos de ellos, recomendado. En esta investigación, se investigaron varios estudios para buscar en los recursos autorizados de la medicina tradicional y las bases de datos PubMed y se han interpretado varios mecanismos para el tratamiento del dolor de cabeza en la medicina tradicional iraní.

**Palabras clave:** Dolor de cabeza, temperamento, Sodaa (migraña), medicina tradicional iraní.

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## 1. Introduction

Headache is one of the most common pains in during life all of the human, which even children sometimes suffer from it. Perhaps, the simplest definition for the headache is the symptom of pain anywhere from the region of the orbit (socket of the skull in which the eye) to the back head toward the neck, which lasts from a few seconds to a few days (Kamali, Arizi and Abedi, 2012). Headaches are broadly classified into two primary and secondary. Primary headaches usually are headaches in which the illness or other factor has not caused headache, and include cluster headaches - migraines and tension-type headaches and chronic daily headaches (Britze et al, 2016). Secondary headaches have many causes and pathologies (disease or pathology) that affected by disease or problems in other parts of the body, or intracranial disease, such as meningitis, which has been shown as a headache. Headache is not a disease, but, it is the symptom of a broad range of diseases that start with a simple common cold and end with serious illnesses like malignant of brain tumors (International Headache Society, 2018). Fortunately, about 98% of the headaches are benign and improvable and 1 to 2 percent of the headaches occur due to brain tumors or brain damage. Usually headaches that intensify in the morning are high risk and those that intensify from morning to night are low risk (ibid).

### 1.1. Epidemiology

According to the World Health Organization, 64% to 77% of the world's population experienced headaches at least once in their life, and 50% of the people once a year had headaches (Wilson et al, 2011).

- The main mechanisms of headache are:
- Vasoconstriction in and near the skull
- Vasculitis in and near the skull
- Vascular Infection in and near the skull
- Continuous contraction of the braincase and neck muscles
- Change of Intracranial pressure

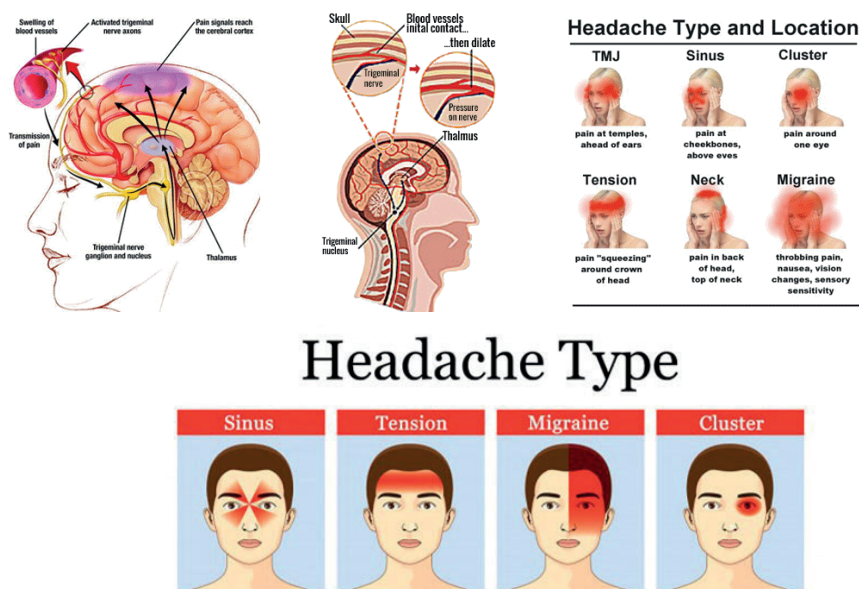


Fig.1. headache type and location

### 1.2. Cluster headaches

Cluster headaches are not pervasive and 1% of the world's population is affected. Smokers usually complain about this headache. There is also tearing, red eye . It may be that the Ptosis on the same side and the pupil will temporarily

expand; it means the blackness of eye on the left side will appear larger. This type of headache is more common in men than in women (O'regan, 2005).

\*Migraine headaches:

Frequently caused by metabolic process disorder and cerebral aneurysm, which is three times more common in female than male, which is associated with estrogen hormone. The decrease in estrogen levels compared with progesterone in the first cycle and subsequent increase in the second menstrual cycle is one of the reasons. Often a genetic person may inherit this problem (Britze et al., 2016).

### 1.3. Tension headaches

Tension-type headaches usually present with non-pulsing. A pressure that is caused by tension headache is like keeping the headband tight around the forehead. Often this pressure rises from morning to night.

Of the factors, Tension headaches can be cited to stress, depression and tiredness, inappropriate body condition, and placing the head in an unsuitable state for a long term. Tension Headaches are not chronic and usually caused by neck and head injury (Birk et al., 2005).

### 1.4. Sinus headaches

This kind of headache occurs in the face and around the eyes, is usually caused by sinusitis, and usually accompanied by fever, swelling in your face and pressure in the cheekbones, forehead. Often, in some cases, the root of family history and the use of contraceptive medications Estrogen-containing cause it in women who are not associated with sinus infections (Wilson et al., 2011).

Many illnesses may have a role in causing headaches, some of which can be mentioned (Bonavita, V & De Simone, 2009):

hypertension or hypotension - constipation - stomach upset and digestive problems - liver and spleen diseases - weakness of the nerves - fever and chills - some essential oils and fragrances - high bleeding in women and hemorrhoids - kidney problems - hunger and thirst - Asthma and air pollution - Eye diseases and astigmatism - Food poisoning - Diabetes - Tooth decay and gum infection, especially in the upper jaw and hormones impairment.

Taking medical history of patient with headache to diagnose headache type (Utiger et al., 2002):

1. Ask the questions since the onset of a headache, because headaches that have just begun need to be seriously investigated.
2. Ask for quality and severity of headache, especially if the person is suffering from chronic headache; Ask him, whether the quality and severity of the headache this time different from previous times?
3. Ask the client, whether accompanied by a headache is another symptom, such as nausea, vomiting, tearing and Anorexia, and so on?
4. Ask for a history of headache treatment. If the doctor prescribes medicine for him, ask drug name.
5. Find the exact location of the headache.
6. Find a hereditary history of headache in his / her family.
7. Ask the intervals for headache attacks.

If you have chronic or frequent headaches, it is important to determine what causes these headaches.

A Note ready and consider the following points (Ebrahimi et al., 2018):

When the headache starts and somewhere in the head that gets pain.

What kind of pain do you feel, such as pulsing blinding, pounding, and so on?

How do you feel, before start a headache, such as changes in vision.

Recent exposure to light or sharp odors.

What intervals headache attacks, at what dates and when and how long take it.

Any possible association between your headache and factors including hormonal changes, menstrual cycles, eating foods, activities, stress, smoking, or changes in your sleep habits changes.

Whether, your headache severity in each attack is the same or different.

- Activities that have taken place before the headache starts (12 hours before the onset of a headache)
- Food and drinks that have been consumed before the onset of a headache (12 hours before the onset of a headache)

### **1.5. Headache in traditional Iranian medicine**

A head is the master of body and it is the most important member.

According to some scientists, Temperament flip-flop or dialysis means that natural connections, such as in the vessel or tendon, due to over stretching, have been inflamed or spasm, which is the cause of the headache. In traditional Iranian medicine, as many as sixty types of headaches by Iranian great scientists have been investigated and various strategies for prevention and treatment many of them have been recommended.

## **2. Investigation the Causes and strategy for Headache Treatment in various temperaments**

Bilious, Sanguine, phlegmatic and melancholic

### **2.1. Bilious headache**

It is a pain from bile that comes around the head. Due to increase, biliary vapors in head and fullness the head vessel from the bile and closing the pores of many vapors is concluded (Tabatabaei and Kalantari Hormozi, 2009).

### **2.2. Indications of a bilious headache**

Throbbing and splitting pain felt in the temples, In the hot seasons of the year or in the sunlight intensify, by smell the warm aroma. This headache extends to the entire forehead and the eye. The tongue yellowish and mouth bitterness and the increase temperature in the forehead and GS (yellowish color of the eyes) are symptoms of it. This type of headache is common in men more than women (Fazl Jo, Keshavarz and Tagha, 2010).

### **2.3. Management and Preventive recommendations**

It is recommended to use fresh and cool air in this type of headache, especially in summer, with clean and cool mountain air. It is also advisable to be exposed to hot sunshine during warm hours of the day. It is also recommended that in the diet, fresh vegetables, and fruits, and healthy lettuce such as lettuce, spinach and cucumber, and even cucumber, should be used. Certain drinks must be avoided such as coffee, tea, from activities and mental conditions that increase the prevalence of bile must be avoided. Over-exercise increase bile doses. A fun activity such as walking is recommended.

Sleeplessness and sleep loss (less than 5 hours) and late sleep must be avoided. Anger, psychological excitement, and gabble, increase bile. The use of natural grape vinegar or barberry juice and head rinsing with diluted vinegar or chicory or soaked Alcea are recommended. It is possible to use anti-bile medications such as Tamarind, Barberry and Black Dried lime infusion, and eat after filtration with some pastry (Karimae, 1996).

### **2.4. Sanguine headache**

The headache, if, due to the excess of blood and heat, its symptom cheek redness, Facial Blushing, and a strong pulsing and constipation and fecal stiffness, dizziness tongue redness. The pain begin from the forehead and all over the head, and in temple has a pulse (difference with biliary) and intensify with heat and sunshine. Anger is an exacerbating factor, and it can be seen in men more than women (Khoddami, 2014).

## **3. Management and Preventive recommendations**

Overeating must be avoided and decrease the meal (fried foods, greasy foods, confectionary and artificial sweets, spicy spices, salty foods, falsify salt, salty - pickled such as cabbage-pickled, salty cucumber,..., over eating meat, butter and Cream, Starchy foods, Ice water, Dough, Soft drinks, Eggs, Drinking fluids with or immediately after food, Dates, Ruttab, Dried berries, Raisins in the warm seasons, Sauce, paste, Vinegar and Marinades, Garlic, tea,

coffee, Nescafe, eggplant and fast foods. Advice for sleeping or siesta, cupping, fresh lemon juice, swimming, raw foods (fruits and vegetables), cucumbers, lettuce, especially apple, grains and germinated grains (such as wheat, oats, mushrooms and lentils). ), Fasting laxative seeds (such as, *Descurainia sophia*, ispaghula, Chia, *Alyssum Plantago major*). Consume cold drinks like pomegranate juice, jujube juice, orange juice, lettuce and Sekanjabin. Porridges such as rice soup, Verjuice soup, beet soup and coriander, Tamarind soup, barley soup and lentils soup, which filtered the blood and reduce body heat (Khoddami, 2014).

### 3.1. Phlegmatic headache

If the headache due to excessive phlegm, its symptom pale skin face, tongue white color, and long-term sleepiness and energy loss. Pain usually starts from the neck and back head, when it is cold and stress intensifies, it is relax with smelling warm temper, sometimes with nausea. In women, it is usually seen more than men (Najmabadi, 1973).

Generally, excessive phlegm and chill caused by the wrong lifestyle (imbalance in static and dynamic, high stress and high anger, inappropriate dietary high consumption of fast food, and inappropriate of sleep and awakening) can make fast the disorder in vulnerable individuals. In case of Phlegmatic headaches, it is necessary the phlegm balances in the body and the following items must be observed:

Avoid using white rice, lentils, fish, pasta and lasagna, coffee, Nescafe and tea, yogurt and desserts, watermelon and mushrooms, pickles, sumac, beef, fantasy bread. Lack of chill foods consumption during breakfast (such as tomato, cucumber, cheese), vinegar, and verjuice. Do not drink ice water with food. Lack of raw and cooked foods consumption at the same time (e.g. yogurt, pickles, fruits and salads with a variety of foods...) (Khoddami, 2014). Phlegmatic headaches can also be treated by eating "honey" in fasting condition, eating at night a spoonful of *Peganum harmala* or eating at night a teaspoon of cumin. Also, at night, before sleep, inhale the flavor of Damask rose and perfume of Damask rose. Massage the head and forehead with warm oils such as sesame oil or black cumin oil. Massage the foot warm is also very effective; it decreases the rate of phlegm (Najmabadi, 1973).

### 3.3. Melancholic headache

If the headache due to excessive melancholy, its symptom, obsession and lost thoughts and Ophthalm and weakness in the attention and concentration of the senses, insomnia and Palpitations, and nightmare. This headache usually involves the entire head, and this headache is usually caused by: Noise, anger and noise, traffic, stress, and air pollution... This common headache occur between men and women in the present age at the age of 40 (Fazl Jo, Keshavarz and Tegha, 2010).

It is recommended to have enough physical activity appropriate to the age and physical capacity in daily that meant not job activity or work at home. Use of nature, relax and happy spaces, yoga exercises, deep breathing exercises, which take at least 5 to 10 minutes to complete the lungs and slowly exhale, preferably in outdoor and green environment. Avoid dark dress as well as listening to sad songs.

Avoid the onset of anxiety, intellectual conflict and conflicts and contact with abnormal people. Massage therapy, especially massages of the neck and head with lavender oil and acupuncture, are very useful for controlling this headache.

Of harmful foods that excite melancholy, include sausages and Lunch meat, fast foods, Staling foods, canned foods, pickles, lentils, dried- cheeses, chocolates and food containing essential oils and industrial flavors, industrial vinegar or lemon juice. beans, lentils, mung bean, unripe grapes, sour pomegranate, beef and calf, Fast food, tea, coffee, soft drinks, vinegar, eggplant, cheese, sorrel, Black kashk, type of pickles, pickled cucumbers, yogurt and dough should be avoided. *Dracocephalum*, lavender and *Echium* infusion are useful for healing this kind of headache (Talafooghani & Namdar, 2018).

Tanacetum herbal drop by removal vascular spasms for elimination melancholy is very useful in Melancholic headache treatment. «Migraphar» herbal capsule from the *Tanacetum parthenium* herb and *Matricaria* (*Recutita*) from the German chamomile (*Cichorium* genus) is made, which, in addition to relieving migraine headaches, helps to patients with its sedative and anti-anxiety effects.

- Prevention of migraine headaches
- Acute migraine attacks and nausea and vomiting caused by it.
- Treatment of headaches types such as cluster and tension headaches, premenstrual and menstrual head-

aches ( Doctors Without Borders website)

Anti-migraine drops from Goldaru Company include the following herbs to relieve tension headaches with cold temper.

Fennel seeds: includes anethole, fenecon, methyl chavicol, stragol, comarin, flavonoids

Valeriana officinalis root: includes Valerian isoalorate, valerian acid, valepotriates

Dracocephalum Leaf: includes citral, citronella, geraniol

Walnut stem skin: phenolic glycosides includes salisin, sally curtin and salicylic acid

These two products are available in medicinal herbs (Doctors without Borders website)

Old treat: pouring some lavender flowers in a cap and put it at head for half /an hour (Talafooghani & Namdar, 2018).

#### 4. Conclusion

Perhaps the simplest definition for the headache is to feel any pain and discomfort from the orbit region to the back and neck, which may last from a few seconds to a few days. There are several strategies for headache treatment in modern and traditional medicine. In traditional Iranian medicine, the causes of headache onset described in four phases, and there are good therapies mechanisms for it.

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